REMARKS

Claims 1, 7, 8, 25, 30, 31, 45, 49, 59 and 61-68 have been amended. Claims 6, 29 and 60 have been cancelled. Claims 1-5, 7-28, 30-59 and 61-68 are pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 103(a) Rejection:

The Examiner rejected claims 1, 25, 49 and 59 under 35 U.S.C. § 103(a) as being unpatentable over Matena (U.S. Patent 5,996,075) in view of Winer ("XML-RPC for Newbies"). Applicants respectfully traverse this rejection for at least the following reasons.

Claims 1, 25 and 59 have been amended to include the allowable subject matter from claims 6, 29 and 60, respectfully. As noted below, the Examiner has indicated that claims 6, 29 and 60 would be allowable if rewritten in independent form. Therefore, Applicants submit that claims 1, 25 and 50 are currently allowable.

Regarding claim 49, Matena in view of Winer fails to teach or suggest a message endpoint configured to attach an *encrypted* credential to the message, wherein the service is operable to verify the message as authentic by examining the encrypted credential included in the message. Matena teaches a method for fast a reliable fencing of resources in a clustered environment. The Examiner cites column 5, lines 57-60 and column 6, lines 9-16. Matena's system includes the use of control keys and node keys to ensure that failed resources are quickly eliminated from access, by requiring that all node requests have the current key, and hence membership information. Specifically, Matena teaches that each time a epoch number is generated for each new configuration, such as when a resource is added or fails. Additionally, a new control key is derived from the new epoch number and is distributed to all nodes in the system. Matena refers to each node's copy of the control key as a node key. The node key is sent with all shared resource access requests sent to a resource controller. The controller verifies that the node key matches

the controller's current control key and allows the resource access request only if the two keys match. *See*, Matena, column 2, line 64 – column 3, line 35.

Matena does not utilize encrypted credentials. The Examiner equates Matena's node key with the credential of Applicants' claim. However, Matena's node key is not encrypted. Instead, Matena teaches three different methods of calculating a control key, none of which include the use of encryption or an encrypted credential. Nowhere does Matena mention anything regarding attaching an encrypted credential (or node key) to a message. Matena purposefully performs a plain comparison of a node key to the current epoch as a fast and simple technique to eliminate failed resource. Matena does not verify a message as authentic by examining an encrypted credential included in the message.

Winer also fails to teach or suggest anything regarding attaching an encrypted credential to a message and thus fails to overcome the above-noted deficiencies of Matena regarding the use of encrypted credentials. Therefore, no combination of Matena and Winer would teach or suggest attaching an encrypted credential to a message as recited in Applicants' claim.

Furthermore, it would not make sense to modify Matena to use encrypted node keys. Firstly, Matena teaches that the goal of his invention is to *quickly* and reliably eliminate failed resources. Secondly, Matena teaches that a controller receiving an access request can merely compare the node key from the request with the controller's control key to ensure that the node sending the request has current control key, and hence membership, information. Encrypting Matena's node key would necessarily change the principle of operation of Matena's invention. Requiring the controller to decrypt the node key in each access request would clearly impair Matena's ability to quickly eliminate failed resources and would prevent the controller from simply comparing the value from the message with the control key. This would be counter to the intended operation of Matena's system.

Furthermore, the combination of Matena and Winer is improper because one of ordinary skill in the art would not be motivated to combine the teachings of the references. Winer teaches a method for using XML message for implementing remote procedure calls (RPC). Winer teaches that with RPC, "[r]emote calls are 'marshalled' into a format that can be understood on the other side of the connection" and that "[a]s long as two machines agree on a format, they can talk to each other". (Winer, page 3). However, Matena's system already has proper and valid protocol for communicating between the nodes and controllers in a clustered environment. Additionally, Matena teaches the use of a membership protocol based on a conventional protocol optimized for clustered environments (Matena, column 4, lines 45-57) which does not use XML messages. Moreover, having to marshall and unmarshall the messages in Matena into and out of an XML format, as in Winer, would be counter to the intended goal of Matena to *quickly* eliminate failed nodes by rapidly comparing epoch numbers. Marshalling and unmarshalling the messages in Matena in and out of an XML format as taught by Winer would slow the epoch comparison process of Matena and add unnecessary complication to what is intended to be a simple, fast process. Thus, one of ordinary skill in the art would not be motivated modify Matena to use a completely different, complex and slower message protocol (RPC) utilizing XML messages, as taught by Winer.

Moreover, the Examiner stated motivation to combine Matena and Winer does not actually provide any motivation to combine the two references. The Examiner asserts that it would be obvious "to use XML messages in the system disclosed by Matena since it would have provided a simple and easy to understand method of representing the method calls taught by Matena." However, Matena already includes a simple and easy to understand membership protocol for exchanging messages that includes method calls. One of ordinary skill in the art looking to include a method of representing method calls in Matena's system would simply use the protocol outlined by Matena. There is absolutely no motivation to abandon Matena's membership protocol for the XML-RPC messages taught by Winer.

Thus, for at least the reasons above, the rejection of claim 49 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claim 45.

The Examiner also rejected claims 1-5, 11-17 and 22-24 under 35 U.S.C. § 103(a) as being unpatentable over Bittinger et al. (U.S. Patent 6,453,362) (hereinafter "Bittinger") in view of Matena and further in view of Winer. Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, claims 1, 25 and 59 have been amended to include the allowable subject matter from claims 6, 29 and 60, which the Examiner has indicated would be allowable if rewritten in independent form. Therefore, Applicants submit that claims 1, 25 and 50 are currently allowable.

Regarding claim 45, contrary to the Examiner assertion, Bittinger in view of Matena and in further view of Winer does not teach or suggest a method gate configured to generate a message in a data representation language, wherein the message includes an encrypted credential for allowing the client device access to a service in a distributed computing environment, and wherein the service is operable to verify the message as authentic by examining the encrypted credential included in the message. The Examiner admits that Bittinger fails to teach including any credential in messages sent to and examined by a service and relies on Matena, citing column 5, lines 57-60 and column 6, lines 9-16). However, as discussed above, Matena and Winer, whether considered singly or in combination, fail to teach or mention including encrypted credentials in messages and verifying the message as authentic by examining the encrypted credential included in the message. Furthermore, Bittinger, whether considered alone or in combination with Matena and Winer also fails to teach or suggest a message that includes an encrypted credential for allowing the client device access to a service in a distributed environment, and verifying the message as authentic by examining the encrypted credential included in the message.

Thus, the Examiner's combination of Bittinger, Matena and Winer fails to teach or suggest a method gate configured to generate a message in a data representation language, wherein the message includes an <u>encrypted</u> credential for allowing the client device access to a service in a distributed computing environment, and wherein the service is operable to verify the message as authentic by examining the <u>encrypted</u> credential included in the message, as recited by Applicants' claim.

Additionally, there is no reason to modify Bittinger to use the node key of Matena, on which the Examiner relies. The Examiner assert that including Matena's node key in Bittinger's messages "would have ensure[d] that the requesting client had authority to execute the requested method." However, Bittinger's system already includes procedures for ensuring that the requesting client has authority to access the server. Bittinger's system includes the user of an authentication server that specifically teaches that "establishing a communications link between the client application and authentication server may include *transmitting user identification information* from the client application to the authentication server via the established communications link, and *validating transmitted user identification information*" (Bittinger, column 3, lines 38-64). One skilled in the art seeking to ensure that a requesting client had authority to execute a requested method (i.e. the Examiner stated motivation to combine Bittinger with Matena) with would simply use the system that Bittinger teaches. Moreover, the authentication server utilized by Bittinger clearly provides a stronger method for ensuring that a requesting client is authorized than using the node keys of Matena. Matena's node keys are intended only to ensure that requesting clients have up to date membership information so as to quickly eliminate failed resources (Matena, column 3, lines 30-35). Also, the combination of Matena and Winer is improper for the reasons shown above in regard to claim 49.

Thus, for at least the reasons above, the rejection of claim 45 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks also apply to claim 49.

Regarding claim 15, the Examiner lists claim 15 as both rejected over Bittinger, Matena and Winer and as objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form. Applicants assume the Examiner mistakenly listed claim 15 as rejected since the Examiner does not actually provide any reasons for rejection in regard to claim 15.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejections have been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

Allowed Claims:

Claims 55-58 are allowed.

Allowable Subject Matter:

Claims 6-10, 15, 18-20, 29-33, 36, 38-40, 46, 47, 53, 60-62, 65 and 66 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. As noted above, claims 1, 25 and 59 have been amended to include the allowable subject matter from claims 6, 29 and 60, respectfully. Thus, Applicants submit that claims 1, 25 and 50 are in condition for allowance.
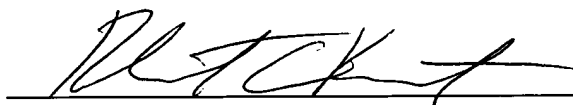
CONCLUSION

Applicants submit the application is in condition for allowance, and prompt notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicants hereby petition for such an extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-67300/RCK.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

☐ Petition for Extension of Time

☐ Notice of Change of Address

☐ Other:

Respectfully submitted,

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